

What is claimed is:

1. A method for controlling the position of a camshaft actuator, the method comprising the steps of:

controlling the position of a camshaft with respect to a reference position utilizing said camshaft actuator in dependence upon an actual position of said camshaft and in dependence upon a determined desired position of said camshaft;

determining a precontrol component based on state quantities characterizing the operation of said camshaft actuator; and,

determining an actuating signal for driving said camshaft actuator from said desired position and an actual position of said camshaft while considering said precontrol component.

2. The method of claim 1, wherein said camshaft actuator is in an internal combustion engine including an internal combustion engine of a motor vehicle.

3. The method of claim 1, comprising the further step of determining said precontrol component based on selected ones of said state quantities which represent the state of the hydraulic liquid which effects an actuating movement of said camshaft actuator.

4. The method of claim 3, wherein the state quantities, which represent said hydraulic liquid, include at least one of the pressure and temperature thereof.

5. The method of claim 2, wherein one of said state quantities

utilized in determining said precontrol component is the on-board voltage.

6. The method of claim 2, further comprising the step of detecting at least a portion of said state quantities via sensors.

7. The method of claim 2, further comprising the step of deriving at least a portion of said state quantities from other quantities measured by sensors with the determination of the state quantities being model supported or being from
5 corresponding characteristic lines.

8. The method of claim 2, further comprising, as said precontrol quantity, a signal by which said actuating signal is changed.

9. The method of claim 7, wherein said actuating signal is changed via an additive or multiplicative logic operation.

10. The method of claim 2, wherein said actuating signal is a clock signal for the actuation of an electromagnetically actuated switch valve opening a fluid path; and, the pulse-duty factor is changed because of the precontrol when supplying
5 current for opening a valve.